

TAKE IT OUTSIDE!

Willow Planting

First Grade



Location

Suitable willow habitat (e.g. an area along a creek) with land owner permission to plant.

Activity Length

Part 1: Four, 25 minute in-class sessions

Part 2: 30 minutes

Materials Needed

- Willows (sprout in classroom)
- Clear containers for sprouting
- Plastic bags for plant transport
- Planting bars or trowels
- Clipboards
- Pencils
- Worksheets (attached)

Preparation

Collect willow cuttings from a streamside area. Be sure to obtain permission from the land owner prior to collection. Cuttings should be approximately 18 inches long. Collect one cutting per student and 5-10 extras to replace those that may not sprout. Prepare and sprout the willow cuttings in your classroom.

For details on preparing the cuttings visit: <https://www.unce.unr.edu/publications/files/ho/other/fs9709.pdf>

Activity

Part 1

- Students will have willow sticks in the classroom for 3-4 weeks ahead of the field trip, so there will be many opportunities to study the plants' growth.
- Tell students about willows (structure, where they grow, ecosystem role).
- Useful websites pertaining to California willow species
 - Arroyo Willow
<http://riverpartners.org/riparian-ecology/veg-wildlife-habitat/ecological-tolerances/arroyo-willow.html>
 - Narrow-leaved Willow
http://plants.usda.gov/factsheet/pdf/fs_saex.pdf
http://plants.usda.gov/plantguide/pdf/cs_saex.pdf
 - Pacific Willow
http://plants.usda.gov/plantguide/pdf/cs_salul.pdf
- Discuss the Plant Parts and Their Jobs worksheet as a class, then allow students to color in each plant part.
- Students observe and record sprouting activity in the classroom on a weekly basis.
- Discuss the changes students observe in their plants. Have students analyze their own plant growth and compare their plant to those of other students.

Part 2

- Students take their sprouted willow sticks to the field trip site for planting. An adult should help students use a planting bar or trowel to plant the willows.
- Take some time to reflect on the project with your students. Talk about how planting the willows made the students feel. How will their willows change this area? Will they provide food or shelter for animals?

Standards Connections

- *Next Generation Science Standards*
1-LS3-1
- *NRC Framework*
Scientific & Engineering Practices: 2, 3, 4, 6, 8
Crosscutting Concepts: 1, 3, 6
Disciplinary Core Ideas: LS1.A, LS3.A, LS3.B
- *Common Core State Standards*
ELA/Literacy: W.1.8
Mathematics: MP.2, MP.5, 1.MD.1

Activity compiled by FRJUSD teachers and Spring Rivers Foundation.



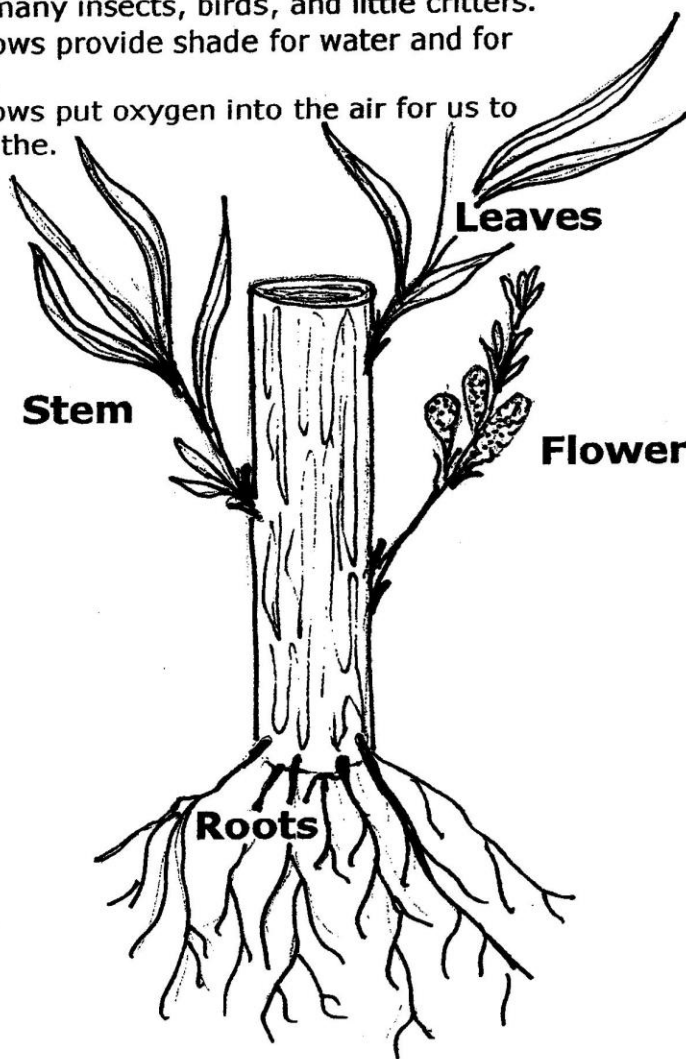
Name _____

Why are we growing a stick?

Willows do wonderful things for the environment. We are growing them to plant at our special place at the refuge!

Interesting willow facts:

- Willows can make roots and leaves from a stick.
- Willow roots help hold soil to keep it from washing away.
- Willow leaves provide food for many animals.
- Willow bushes and trees provide homes for many insects, birds, and little critters.
- Willows provide shade for water and for fish.
- Willows put oxygen into the air for us to breathe.



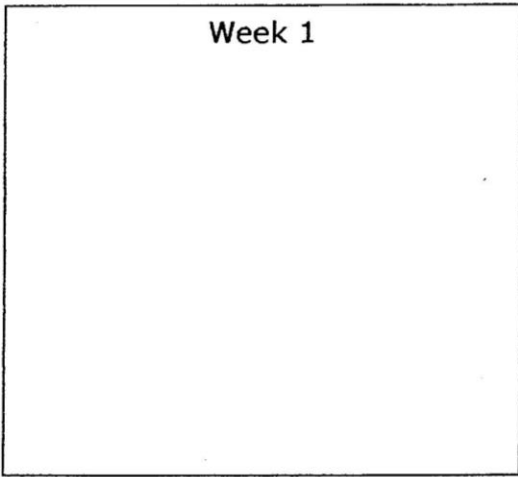
Name _____

How will our willows grow?

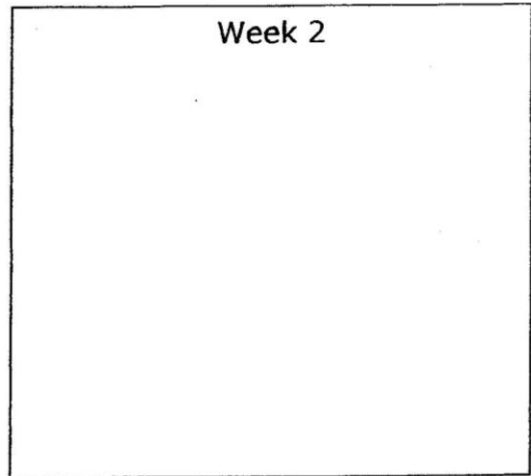
Willows are amazing plants that can grow roots and leaves from a stick when they are put in water.

Let's keep track of our willows and how they change. Draw a picture.

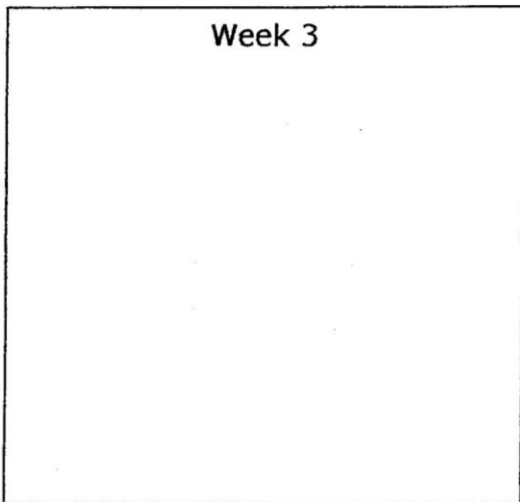
Week 1



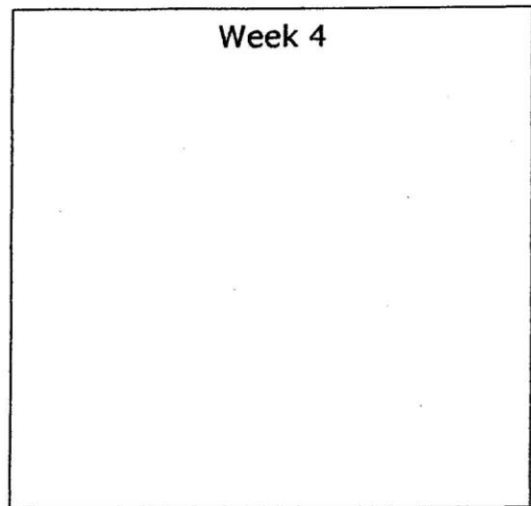
Week 2



Week 3



Week 4



Name _____

Plant Parts and Their Jobs

Let's decorate our plant...

Leaves

Make food for the plant
Breathe for the plant
Let water out of the plant

Stem or trunk

Holds the plant
up
Moves water
from the roots
to the leaves.
Moves food to
the roots.

Roots

Pulls water and
nutrients from the
soil.
Hold the plant in
the soil.

